

***Platanus occidentalis* - *Liriodendron tulipifera* - *Betula (alleghaniensis, lenta)* / *Alnus serrulata* - *Leucothoe fontanesiana* Forest**

COMMON NAME	Sycamore - Tuliptree - (Yellow Birch, Sweet Birch) / Smooth Alder - Mountain
SYNONYM	Montane Alluvial Forest (Large River Type)
PHYSIOGNOMIC CLASS	Forest (I)
PHYSIOGNOMIC SUBCLASS	Deciduous forest (I.B)
PHYSIOGNOMIC GROUP	Cold-deciduous forest (I.B.2)
PHYSIOGNOMIC SUBGROUP	Natural/Semi-natural (I.B.2.N)
FORMATION	Temporarily flooded cold-deciduous forest (I.B.2.N.d)

ALLIANCE *Platanus occidentalis* - (*Liquidambar styraciflua*, *Liriodendron tulipifera*) Temporarily Flooded Forest Alliance

CLASSIFICATION CONFIDENCE LEVEL 2

USFWS WETLAND SYSTEM Palustrine

RANGE

**Globally**

This community occurs in the mountains of North Carolina, South Carolina, and Tennessee.

**Great Smoky Mountains National Park**

This community was not sampled from the Cades Cove or Mount Le Conte quadrangles but is likely in the Park.

ENVIRONMENTAL DESCRIPTION

**Globally**

This community includes alluvial forests of the southern Blue Ridge associated with narrow, rocky floodplains and islands in medium-sized rivers, typically at elevations below 2000 feet.

**Great Smoky Mountains National Park**

No information

MOST ABUNDANT SPECIES

**Globally**

Stratum

Species

No information

**Great Smoky Mountains National Park**

Stratum

Species

No information

CHARACTERISTIC SPECIES

**Globally**

*Platanus occidentalis*, *Liriodendron tulipifera*, *Liquidambar styraciflua*, *Betula alleghaniensis*, *Betula lenta*, *Carpinus caroliniana*, *Betula nigra*, *Fraxinus americana*, *Tsuga canadensis*, *Leucothoe fontanesiana*, *Rhododendron maximum*, *Alnus serrulata*, *Xanthorhiza simplicissima*

**Great Smoky Mountains National Park**

No information

VEGETATION DESCRIPTION

**Globally**

Canopy composition is variable but typical dominants are *Platanus occidentalis*, *Liriodendron tulipifera*, *Liquidambar styraciflua*, *Betula alleghaniensis*, and *Betula lenta*. Other canopy/subcanopy trees can include *Carpinus caroliniana*, *Hamamelis virginiana*, *Betula nigra*, *Fraxinus americana*, *Acer rubrum*, *Pinus virginiana*, *Pinus strobus*, and *Tsuga canadensis*. Vines can be prominent, including *Aristolochia macrophylla*, *Parthenocissus quinquefolia*, *Smilax glauca*, *Smilax rotundifolia*, and *Vitis aestivalis*. The shrub stratum can be dense, often with local dominance by *Leucothoe fontanesiana* or *Rhododendron maximum*. Other characteristic shrubs include *Alnus serrulata*, *Xanthorhiza simplicissima*, and *Hydrangea arborescens*. Herbaceous species composition varies from site to site, and herbaceous strata can be quite patchy on the rocky substrate.

Characteristic species known from these forests include *Amphicarpaea bracteata*, *Cimicifuga racemosa*, *Polystichum acrostichoides*, *Aster divaricatus*, and *Viola blanda*. *Carex* species may be common (e.g. *Carex appalachica*, *Carex austrocaroliniana*, *Carex blanda*, *Carex digitalis*, *Carex plantaginea*, *Carex swanii*, *Carex torta*).

***Great Smoky Mountains National Park***

No information

OTHER NOTEWORTHY SPECIES

No information

CONSERVATION RANK                      G2?

RANK JUSTIFICATION

This community is naturally uncommon in the southern Blue Ridge. Well-developed examples are rare due to clearing for agriculture and development. This community is threatened by road building and other hydrologic altering disturbances.

DATABASE CODE                              C EGL004691

COMMENTS

***Globally***

Examples are known from Nantahala Gorge, Linville Gorge, Slickrock Creek, and the South Toe River. This alluvial forest type is less common in the southern Blue Ridge than alluvial forests dominated by *Tsuga canadensis*, which are found in areas with better-developed soils and less frequent flooding than the *Tsuga canadensis* - (*Pinus strobus*) Temporarily Flooded Forest Alliance (I.A.8.N.e).

***Great Smoky Mountains National Park***

REFERENCES

McLeod 1988, Newell and Peet 1995, Newell et al. 1997, Schafale and Weakley 1990